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# U. S. Department of Agriculture,

Seed and Plant Introduction and Distribution, WASHINGTON, D. C.

# WILT-RESISTANT JACKSON COTTON.

This is a variety of Upland cotton bred by the United States Department of Agriculture to resist the disease known as wilt or black-root. It is not entirely immune, but is much more resistant than the common kinds and can be planted with profit unless the wilt is extremely severe or the land badly infected with root-knot.

#### ORIGIN.

This cotton has been developed from the old Jackson Limbless variety by a careful system of seed selection. Resistant plants from badly infected fields were chosen and the seed from each plant grown separately, only the best being retained. This work has been in progress since 1900 and will be continued.

#### DESCRIPTION.

The plant is nearly limbless, except for one or two large branches from near the ground, erect, tall, bolls medium size, clustered; seed small, gray-tufted. It is one of the most productive varieties. The bolls open well, but hold the seed firmly, making it one of the most stormproof varieties and in consequence somewhat harder to pick.

#### DIRECTIONS FOR PLANTING.

In order to compare the wilt resistance of this variety with ordinary cotton, a row or two of the latter may be planted through the field. It is in other respects a disadvantage to

have other cotton planted near the Jackson variety, as mixing takes place readily and the seed deteriorates.

Plant in rows 4 feet apart, 1 to 2 feet apart in the row. This cotton, on account of its upright habit, will stand closer planting than other kinds, but it is a mistake to crowd it too much.

## WHAT IS WILT?

Cotton wilt is a disease caused by a parasitic soil fungus. It is recognizable by the brown stain in the wood of the diseased stem and root, which has given it the name "black-root" in many sections. It is common in sandy land, but not troublesome on clay soils. It remains in the land many years and is only slightly reduced by resting or rotation. There is no remedy except the use of resistant varieties.

#### WHAT IS ROOT-KNOT?

Root-knot is a disease caused by a minute eel-worm or nematode, which produces irregular swellings on the roots of cotton, cowpeas, tomatoes, and many other vegetables. It is often found occurring with the wilt, though not always. It is more common in the Gulf States than farther north.

When both wilt and root-knot are in the land, it is necessary to employ a rotation of crops in addition to planting a resistant variety of cotton. Only crops that are not affected by root-knot can be used. Some of these are corn, oats, Iron cowpea, velvet bean, and peanuts. The ordinary cowpeas in particular should be avoided, as they are so susceptible to root-knot that they spread the trouble rapidly.

## KEEP YOUR SEED PURE.

Farmers are urged to maintain the quality of this strain and to make further improvement in it by selecting the best plants for seed and by exercising care that their seed is not mixed with other cotton at the public gins or elsewhere.